

- a) receiving a NURBS model for rendering from a software program running on the processor of the computer system ;
- b) converting the NURBS model to a Bezier model using the graphics rendering pipeline;
- c) generating a plurality of Bezier control points from a corresponding plurality of NURBS control points using a tri-linear interpolator in the graphics pipeline by:
- c1) using the plurality of NURBS control points as inputs to the tri-linear interpolator; and
 - c2) evaluating the NURBS control points to obtain each of the plurality of Bezier control points;
- d) generating a plurality of points on a curve or surface, wherein the curve or surface is defined by the Bezier model, using the graphics rendering pipeline; and
- e) rendering the curve or surface defined by the NURBS model using the plurality of points and using the graphics rendering pipeline such that the curve or surface is rendered without first converting the NURBS model to a polygon mesh.

9. (Amended) In a graphics rendering pipeline of a computer system, a method for rendering NURBS defined curves or surfaces using the graphics rendering pipeline without first converting the NURBS defined curve or surface to a polygon mesh, the method comprising the steps of:

- a) implementing a de Casteljau process in the graphics pipeline;

b) evaluating a Bezier curve or surface using the de Casteljau process;
and

c) implementing the de Casteljau process using a tri-linear interpolator
included in the graphics pipeline by:

loading inputs of the tri-linear interpolator with a plurality of
control points of the Bezier curve or surface; and

generating a plurality of points on the curve or surface using the
tri-linear interpolator; and

d) rendering the Bezier curve or surface without first converting the
Bezier curve or surface to a polygon mesh.
